

DETAILED ACTION

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Paul, Chester M on 7/3/09, (Reg # 51,990).

The application has been amended as follows:

IN THE CLAIMS:

Claim 1, (Currently Amended) A computer-based method for teaching a knowledge-based database for automatic defect classification, which comprises:

- (a) accepting, using a specially programmed computer, selecting a user selection of a review data file;
- (b) accepting, using the specially programmed computer, inputting parameters and data by a user on one page of a learning mode whereby the parameters and the data are known to the user;
- (c) starting, using the specially programmed computer, an alignment procedure and a procedure for adjusting light intensity, the alignment procedure with respect to at least one point on a wafer;
- (d) automatically adjusting, using the specially programmed computer, the optimal intensity of the light intensity accepting a selection of a first specific number of defects to

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approach on a first wafer and taking respective pictures of the first specific number of defects on the first wafer and if necessary regulating to the optimal illumination using the respective pictures;

(e) checking, using the specially programmed computer, a detection, whereby an optimization of the detection parameters is carried out by accepting a selection of a second specific number of defects to approach on a second wafer, taking pictures of the second specific number of defects on the second wafer, displaying the pictures, and using the pictures to adjust a detection threshold using pictures;

(f) automatically approaching all defects of a wafer or wafers, whereby the respective defect is detected and a descriptor is assigned, by the specially programmed computer, to the respective defect; and,

(g) analyzing and automatically grouping, using the specially programmed computer, the descriptors of the defect.

Response to Amendment

2. Applicant's amendment filed on 4/16/09 has been entered.

In response to applicant's amendment all the prior art rejection has been withdrawn.

Claims 1-14 are pending in the application.

Applicant has amended claim 1 to overcome 35 USC § 101 rejection. Therefore, the rejection under 101 and 103(a) has been withdrawn.

Response to Arguments

3. Applicant's arguments filed on 4/16/09 have been fully considered and are persuasive.

Reason For Allowance

4. The following is an examiner's statement of reasons for allowance:

Claims 1-14 are allowed.

Applicant's arguments (see page 8 - 9, of the remarks filed on 4/16/09. The prior art of record Lamey et al., (US. 6,408,219 B2) discloses semiconductor fabrication systems and, more specifically, to a system for identifying the sources of wafer defects and using this information to control the processes in a fabrication plant.

Lamey teaches selecting a review data file and an alignment process. Lamey fails to teach "(a) accepting, using a specially programmed computer, a user selection of a review data file; (b) accepting, using the specially programmed computer,

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parameters and data input by a user on one page of a learning mode whereby the parameters and the data are known to the user;" "(c) starting, using the specially programmed computer, an alignment procedure and a procedure for adjusting light intensity, the alignment procedure with respect to at least one physical location on a wafer;" "(d) automatically adjusting, using the specially programmed computer, the optimal intensity of the light intensity by accepting a selection of a first specific number of defects to approach on a first wafer and taking respective pictures of the first specific number of defects on the first wafer and if necessary regulating to the optimal illumination using the respective pictures;" . Tanaka discloses detecting defects and not an optimization process, Tanaka fails to "(e) checking, using the specially programmed computer, a detection using a few examples, whereby an optimization of the detection parameters is carried out by accepting a selection of a second specific number of defects to approach on a second wafer, taking pictures of the second specific number of defects on the second wafer, displaying the pictures, and using the pictures to adjust a detection threshold;" (f) automatically approaching all defects of a wafer or wafers, whereby the respective defect is detected and a descriptor is assigned, by the specially programmed computer, to the respective defect; and, "(g) analyzing and automatically grouping, using the specially programmed computer, the descriptors of the defect", as commonly included in claim 1 , the prior art of record fails to teach either singularly or in combination, fails to anticipate or render the above limitations obvious.

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5. Any comments considered necessary by applicant must be submitted on later than the payment of the issue fee and to avoid processing delays should preferably accompany the issue fee. Such submissions should be clearly labeled comments on statement of reasons for allowance.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHEELA C. CHAWAN whose telephone number is (571)272-7446. The examiner can normally be reached on 7.30- 5.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vikram Bali can be reached on 571-272-7401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)? If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sheela C Chawan/

Primary Examiner, Art Unit 2624